

**2002 MONOGRAPH
of
PUBLIC COMMENTS**

2002 ANNUAL CODE ADOPTION CYCLE

NOTE: Bring this document and the October 2002, "45-DAY PUBLIC COMMENT MONOGRAPH" to the California Building Standards Commission meeting on March 19, 2003. This meeting will be held at Consumer Affairs Building, First Floor Hearing Room, 400 R Street, Sacramento, California 95814.

February 2003

**Stanley T. Nishimura, Executive Director
California Building Standards Commission
2525 Natomas Park Drive, Suite 130
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(916) 263-0916**

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Preface

State Building Standards Law (Health and Safety Code Section 18929.1) requires state agencies that propose building standards for adoption to, amendment to, or repeal from the California Building Standards Code (California Code of Regulations, Title 24) to submit them for consideration in an annual code adoption cycle. In the 2002 Annual Code Adoption Cycle, proposed building standards are suggested by the California Building Standards Commission (BSC), Division of the State Architect—Access Compliance (DSA/AC), Division of the State Architect—Structural Safety (DSA/SS), Department of Housing and Community Development (HCD), Office of the State Fire Marshal (SFM), and Office of Statewide Health Planning and Development (OSHPD).

The purpose of this document is to make available public comments received during the 45-day comment period to the “45-Day Public Comment Monograph for the 2002 Annual Code Adoption Cycle”, with Code Advisory Committee recommendations, in accordance with the State Building Standards Law and the Government Code (Administrative Procedure Act). Comments are listed in order according to the item number on which comment was received. Only those proposed code changes that received public comment to the state agency’s proposed modifications or to Code Advisory Committee recommendations are included in this monograph.

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FEBRUARY 2003

**MONOGRAPH
OF
PUBLIC COMMENTS**

2002 Annual Code Adoption Cycle

NOTICE OF COMMISSION MEETING

The purpose of this document is to make available public comments received to the October 2002 "45-Day Public Comment Monograph for the 2002 Annual Code Adoption Cycle" with Code Advisory Committee recommendations.

OPEN MEETING – WHERE AND WHEN

The code changes contained within this monograph and the October 2002 monograph will be considered by the California Building Standards Commission at a public meeting to be held as indicated in the chart which follows:

California Building Standards Commission

| When | Where |
|--|--|
| Wednesday – March 19, 2003 10:00 a.m. | Consumer Affairs Building First Floor Hearing Room 400 R. Street Sacramento, CA 95814 |

The meeting facilities are accessible to the physically disabled. Request for accommodations for the disabled (assistive listening device, sign language interpreters, etc.) should be made to the Commission office, at the address listed on the front cover, no later than 10 days prior to the day of the meeting. If paratransit services are needed, they may be contacted at (916) 454-4131.

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FEBRUARY 2003

***Public Comments to the California Building Standards Code
California Code of Regulations
Title 24
(Submittals for 2002 Annual Code Adoption Cycle)***

NOTE: In order to follow the proposed revisions through the code change cycle, it is important to retain parts 1, 2, 3, 4, 5, & 9 of the California Building Standards Code.

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| ITEM 2 | OSHPD 4/02 | SAFETY STANDARDS FOR HEALTH FACILITIES Chapter 7, amend various sections. NO COMMENTS RECEIVED |
| SUB-ITEM 2-1 | | Article 3, section 7-125, FINAL REVIEW OF PLANS AND SPECIFICATIONS <i>(HF CAC RECOMMENDATION – APPROVE AS RESUBMITTED)</i> NO COMMENTS RECEIVED |
| SUB-ITEM 2-2 | | Article 3, section 7-129, TIME LIMITATIONS FOR APPROVAL <i>(HF CAC RECOMMENDATION – APPROVE AS SUBMITTED)</i> NO COMMENTS RECEIVED |
| SUB-ITEM 2-3 | | Article 4, section 7-135, TIME OF BEGINNING CONSTRUCTION <i>(HF CAC RECOMMENDATION – APPROVE AS RESUBMITTED)</i> NO COMMENTS RECEIVED |
| SUB-ITEM 2-4 | | Article 4, section 7-141, ADMINISTRATION OF CONSTRUCTION <i>(HF CAC RECOMMENDATION – APPROVE AS SUBMITTED)</i> NO COMMENTS RECEIVED |
| SUB-ITEM 2-5 | | Article 4, section 7-155, FINAL APPROVAL OF THE WORK <i>(HF CAC RECOMMENDATION – APPROVE AS SUBMITTED)</i> NO COMMENTS RECEIVED |
| SUB-ITEM 2-6 | | Article 19, section 7-203, APPLYING FOR THE CERTIFICATION EXAMINATION <i>(HF CAC RECOMMENDATION – APPROVE AS SUBMITTED)</i> NO COMMENTS RECEIVED |

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SWING OF PATIENT ROOM DOORS
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NO COMMENTS RECEIVED

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SEISMIC DESIGN OF IRREGULAR STRUCTURES
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NO COMMENTS RECEIVED

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NO COMMENTS RECEIVED

SUB-ITEM 4-3

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SUB-ITEM 4-5

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NO COMMENTS RECEIVED

SUB-ITEM 4-6

Section 1630A.7, Horizontal Torsional Moments
(SDLF CAC RECOMMENDATION – APPROVE AS SUBMITTED)
NO COMMENTS RECEIVED

SUB-ITEM 4-7

Section 1631A.3, Mathematical Model
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NO COMMENTS RECEIVED

SUB-ITEM 4-8

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SUB-ITEM 4-9

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SUB-ITEM 4-13

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NO COMMENTS RECEIVED

SUB-ITEM 4-14

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(SDLF CAC RECOMMENDATION – APPROVE AS SUBMITTED)
NO COMMENTS RECEIVED

SUB-ITEM 4-15

Section 2211A – Amendments
(SDLF CAC RECOMMENDATION – APPROVE AS SUBMITTED)
NO COMMENTS RECEIVED

SUB-ITEM 4-16

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(SDLF CAC RECOMMENDATION – APPROVE AS SUBMITTED)
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| | SUB-ITEM 5-2 | Section 1629A.8, Selection of Lateral-force Procedure (<i>SDLF CAC RECOMMENDATION – APPROVE AS SUBMITTED</i>) NO COMMENTS RECEIVED | |
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HEALTH & SAFETY CODE SECTION 18930

SECTION 18930. APPROVAL OR ADOPTION OF BUILDING STANDARDS; ANALYSIS AND CRITERIA; REVIEW CONSIDERATIONS; FACTUAL DETERMINATIONS

- (a) Any building standard adopted or proposed by state agencies shall be submitted to, and approved or adopted by, the California Building Standards Commission prior to codification. Prior to submission to the commission, building standards shall be adopted in compliance with the procedures specified in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code. Building standards adopted by state agencies and submitted to the commission for approval shall be accompanied by an analysis written by the adopting agency or state agency that proposes the building standards which shall, to the satisfaction of the commission, justify the approval thereof in terms of the following criteria:
- (1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.
 - (2) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.
 - (3) The public interest requires the adoption of the building standards.
 - (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.
 - (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.
 - (6) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.
 - (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.
 - (A) If a national specification, published standard, or model code does not adequately address the goals of the state agency, a statement defining the inadequacy shall accompany the proposed building standard when submitted to the commission.
 - (B) If there is no national specification, published standard, or model code that is relevant to the proposed building standard, the state agency shall prepare a statement informing the commission and submit that statement with the proposed building standard.
 - (8) The format of the proposed building standards is consistent with that adopted by the commission.
 - (9) The proposed building standard, if it promotes fire and panic safety as determined by the State Fire Marshal, has the written approval of the State Fire Marshal.
- (b) In reviewing building standards submitted for its approval, the commission shall consider only the record of the proceedings of the adopting agency, except as provided in subdivision (b) of Section 11342.3 of the Government Code.
- (c) Where the commission is the adopting agency, it shall consider the record submitted to, and considered by, the state agency that proposes the building standards and the record of public comment that results from the commission's adoption of proposed regulations.
- (d) (1) The commission shall give great weight to the determinations and analysis of the adopting agency or state agency that proposes the building standards on each of the criteria for approval set forth in subdivision (a). Any factual determinations of the adopting agency or state agency that proposes the building standards shall be considered conclusive by the commission unless the commission specifically finds, and sets forth its reasoning in writing, that the factual determination is arbitrary and capricious or substantially unsupported by the evidence considered by the adopting agency or state agency that proposes the building standards.
- (2) Whenever the commission makes a finding, as described in this subdivision, it shall return the standard to the adopting agency or state agency that proposes the building standards for a reexamination of its original determination of the disputed fact.
- (e) Whenever a building standard is principally intended to protect the public health and safety, its adoption shall not be "factual determination" for purposes of subdivision (d). Whenever a building standard is principally intended to conserve energy or other natural resources, the commission shall consider or review the cost to the public or benefit to be derived as a "factual determination" pursuant to subdivision (d). Whenever a building standard promotes fire and panic safety, each agency shall, unless adopted by the State Fire Marshal, submit the building standard to the State Fire Marshal for prior approval.
- (f) Whenever the commission finds, pursuant to paragraph (2) of subdivision (a), that a building standard is adopted by an adopting agency pursuant to statutes requiring adoption of the building standard, the commission shall not consider or review whether the adoption is in the public interest pursuant to paragraph (3) of subdivision (a).

Part 2

California Building Code

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ITEM 4**DSA/SS 3/02****Part 2****Chapter 16A, 22A, and 16B, Division IV****SUB-ITEM 4-4****1630A.2.2 Structure Period.****COMMENT #1**

S.K. Ghosh

Portland Cement Association

1856 Walters Ave.

Northbrook, Illinois 60062

Request that this item or reference provision be: Disapproved**Reason:**

This is a proposal with very serious impact. Let us consider a hospital within 2 km of a Type A fault, in Seismic Zone 4, on Soil Profile Type S_B . We will use subscript p to indicate proposed values.

$$I = 1.25 \quad N_v = 2.0$$

$$\text{Approximate period } T_{Ap} = T_A/2.5$$

$$\text{Design base shear } V_p = 2.5V$$

Thus, along the velocity-governed part of the design spectrum, base shear goes up by a factor of 2.5. The transition period, at which acceleration-governed response changes to velocity-governed response, is:

$$T_s = \frac{C_v}{2.5C_a} = \frac{0.4N_v}{2.5 \times 0.4N_a} = \frac{0.4 \times 2.0}{1.5} = 0.53 \text{ sec.}$$

$$T_{sp} = \frac{2.5C_v}{2.5C_a} = \frac{2.5 \times 0.4N_v}{2.5 \times 0.4N_a} = \frac{2.0}{1.5} = 1.33 \text{ sec.}$$

This means that all buildings with $I = 1.25$, $N_v = 2.0$, founded on S_B soil, and having period up to 1.33 sec. must be designed for the upper-bound design base shear ($2.5C_a/R$). We will essentially be saying that even at a period of 1.33 sec., such buildings must be designed assuming acceleration-governed response. It is hard to find justification for this.

We have carefully studied the rationale on pp. 30-31 of the July 2002 Monograph. If the basic problem, as stated therein, is that "...the Method A period often exceeds the computed Method B period...", then a simple fix would be to require that Method A period cannot exceed Method B period.

The suggested revision violates Health & Safety Code Section 18930 Subsection (a), Items (3), (4), and (5):

The public interest does not require the adoption of the suggested revision.

The suggested revision is unreasonable, arbitrary, unfair, or capricious in whole or in part.

The cost to the public is not reasonable, based on the overall benefit to be derived from the proposed revision.

I propose that a restriction be put in saying that the approximate period shall not be allowed to be longer than the rationally computed period. Apparently, computing the rational period is not easily done for some types of buildings; therefore, if someone does not compute the rational period, then what OSHPD has proposed for the approximate period formula will be the approximate period formula.

SUB-ITEM 4-4 – Commission Action

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*** * ***
(END OF ITEM)

SUB-ITEM 4-10

1633A.1 General.

COMMENT #1

S.K. Ghosh
Portland Cement Association
1856 Walters Ave.
Northbrook, Illinois 60062

Request that this item or reference provision be: Disapproved

Reason:

This proposed change is quite problematic. Before shear wall design changed radically in the 1994 UBC, boundary elements had to be designed as columns to carry the entire factored axial load (P_u) tributary to a shear wall and the entire factored overturning moment (M_u) caused by lateral forces, as long as the combined compressive stress at the edges of the shear wall, elastically computed based on gross cross-sectional properties, exceeded $0.2 f'_c$, which was a low threshold, 1994 UBC changed all that. Today's boundary elements are specially confined zones of shear walls where compressive strains in the concrete, caused by gravity loads and the estimated design earthquake displacements, are high. These are never designed assuming that the shear wall web between boundary elements will be rendered incapable of carrying bending moments and axial forces by an earthquake. The shear walls including such boundary elements are never common to two intersecting lateral-force-resisting systems. And there is no basis to treat the boundary elements separately from the walls any more.

The proposed change might have some merit, if applied only to boundary elements of shear walls designed by the procedure that was in the UBC through its 1991 edition. Even if its applicability could be limited in that manner, it would be unwise to approve this change. The very serious misgiving we have is that the proposed change would lead to increases in longitudinal boundary element reinforcement. This would make shear walls stronger in flexure, attracting more shear forces to them in earthquakes. This will make non-ductile shear failure more likely, because the designer will not be required to correspondingly increase the shear strength of the walls.

We are convinced that better shear wall designs are obtained without this change, than with this change.

The suggested revision violates Health & Safety Code Section 18930 Subsection (a), Items (3), (4), and (5):

The public interest does not require the adoption of the suggested revision.

The suggested revision is unreasonable, arbitrary, unfair, or capricious in whole or in part.

The cost to the public is not reasonable, based on the overall benefit to be derived from the proposed revision.

SUB-ITEM 4-10 – Commission Action

A AA D FS

*** * ***
(END OF ITEM)

ITEM 5
OSHDP 3/02
Part 2
Chapters 16A and 22A

SUB-ITEM 5-4

1630A.2.2 Structure Period.

COMMENT #1

S.K. Ghosh
Portland Cement Association
1856 Walters Ave.
Northbrook, Illinois 60062

Request that this item or reference provision be: Disapproved

Reason:

This is a proposal with very serious impact. Let us consider a hospital within 2 km of a Type A fault, in Seismic Zone 4, on Soil Profile Type S_B . We will use subscript p to indicate proposed values.

$$I = 1.25 \quad N_v = 2.0$$

$$\text{Approximate period } T_{Ap} = T_A/2.5$$

$$\text{Design base shear } V_p = 2.5V$$

Thus, along the velocity-governed part of the design spectrum, base shear goes up by a factor of 2.5. The transition period, at which acceleration-governed response changes to velocity-governed response, is:

$$T_s = \frac{C_v}{2.5C_a} = \frac{0.4N_v}{2.5 \times 0.4N_a} = \frac{0.4 \times 2.0}{1.5} = 0.53 \text{ sec.}$$

$$T_{sp} = \frac{2.5C_v}{2.5C_a} = \frac{2.5 \times 0.4N_v}{2.5 \times 0.4N_a} = \frac{2.0}{1.5} = 1.33 \text{ sec.}$$

This means that all buildings with $I = 1.25$, $N_v = 2.0$, founded on S_B soil, and having period up to 1.33 sec. must be designed for the upper-bound design base shear ($2.5C_a/R$). We will essentially be saying that even at a period of 1.33 sec., such buildings must be designed assuming acceleration-governed response. It is hard to find justification for this.

We have carefully studied the rationale on pp. 30-31 of the July 2002 Monograph. If the basic problem, as stated therein, is that "...the Method A period often exceeds the computed Method B period...", then a simple fix would be to require that Method A period cannot exceed Method B period.

The suggested revision violates Health & Safety Code Section 18930 Subsection (a), Items (3), (4), and (5):

The public interest does not require the adoption of the suggested revision.

The suggested revision is unreasonable, arbitrary, unfair, or capricious in whole or in part.

The cost to the public is not reasonable, based on the overall benefit to be derived from the proposed revision.

I propose that a restriction be put in saying that the approximate period shall not be allowed to be longer than the rationally computed period. Apparently, computing the rational period is not easily done for some types of buildings; therefore, if someone does not compute the rational period, then what OSHDP has proposed for the approximate period formula will be the approximate period formula.

SUB-ITEM 5-4 – Commission Action

A AA D FS

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COMMENT #2
Doug C. Honbach
Chair, SEAOC Seismology Committee

Request that this item or reference provision be: **Unknown**

Reason: Unclear

Comment:
The proposed modification to the Method A period formula likely overcompensates for the cited effects. A relationship related to the square root of the new factors would likely be more accurate. In any case there appears to have been insufficient study to make a modification of this magnitude to the period formula. It was agreed that more appropriate approach at this point in time would be to require the use of the smaller of the calculated Method A or Method B periods.

SUB-ITEM 5-4 – Commission Action

A AA D FS

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(END OF ITEM)

SUB-ITEM 5-10

1632A.6 HVAC Ductwork, Plumbing/Piping and Conduit Systems.

COMMENT #1

S.K. Ghosh
Portland Cement Association
1856 Walters Ave.
Northbrook, Illinois 60062

Request that this item or reference provision be: Disapproved

Reason:

This proposed change is quite problematic. Before shear wall design changed radically in the 1994 UBC boundary elements had to be designed as columns to carry the entire factored axial load (P_u) tributary to a shear wall and the entire factored overturning moment (M_u) caused by lateral forces, as long as the combined compressive stress at the edges of the shear wall, elastically computed based on gross cross-sectional properties, exceeded $0.2 f'_c$ which was a low threshold. 1994 UBC changed all that. Today's boundary elements are specially confined zones of shear walls where compressive strains in the concrete, caused by gravity loads and the estimated design earthquake displacements, are high. These are never designed assuming that the shear wall web between boundary elements will be rendered incapable of carrying bending moments and axial forces by an earthquake. The shear walls including such boundary elements are never common to two intersecting lateral-force-resisting systems. And there is no basis to treat the boundary elements separately from the walls any more.

The proposed change might have some merit, if applied only to boundary elements of shear walls designed by the procedure that was in the UBC through its 1991 edition. Even if its applicability could be limited in that manner, it would be unwise to approve this change. The very serious misgiving we have is that the proposed change would lead to increases in longitudinal boundary element reinforcement. This would make shear walls stronger in flexure, attracting more shear forces to them in earthquakes. This will make non-ductile shear failure more likely, because the designer will not be required to correspondingly increase the shear strength of the walls.

We are convinced that better shear wall designs are obtained without this change, than with this change.

The suggested revision violates Health & Safety Code Section 18930 Subsection (a), Items (3), (4), and (5):

The public interest does not require the adoption of the suggested revision.

The suggested revision is unreasonable, arbitrary, unfair, or capricious in whole or in part.

The cost to the public is not reasonable, based on the overall benefit to be derived from the proposed revision.

SUB-ITEM 5-10 – Commission Action

A AA D FS

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COMMENT #2

Doug C. Honbach
Chair, SEAOC Seismology Committee

Request that this item or reference provision be: Approved as Amended

Reason: Unknown

Comment:

Rather than the modifications proposed, the committee suggested that the sentence in section 1633A "A column of a structure forms part of two or more intersecting lateral force resisting systems." be changed to "A column or wall of a structure forms part of two or more intersecting lateral force resisting systems."

SUB-ITEM 5-10 – Commission Action

A AA D FS

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(END OF ITEM)

SUB-ITEM 5-16

Section 2211A - Amendments

COMMENT #1

Kurt A. Schaefer, Deputy Director
Office of Statewide Health Planning and Development

Request that this item or reference provision be: Approved as Amended

Reason:

As submitted, the proposed amendment to Item 1, Part 1, Glossary adds a new definition for Inelastic Rotation of Beam-to-Column Connection. This definition is incorrect and conflicts with the correct definition in S3. In addition, Item 9, S3. DEFINITIONS, as submitted, does not make it clear that the inelastic rotation is represented by the plastic chord rotation angle. Item 5-16 does not satisfy criterion #1 and #6 of the 9-Point Criteria. The following modifications, as shown in double strikethrough and double underline, are being proposed:

1. Part 1, Glossary.

~~Inelastic Rotation of Beam to Column Connection: The total angle change between the column face at the connection and a line connection the beam inflection point to the column face, less that part of the angle change occurring prior to yield of the beam.~~

...

9. Part 1, Section S3. Revise to read as follows:

S3. DEFINITIONS

Inelastic Rotation. The permanent or plastic portion of the rotation angle between a beam and the column or between a Link and the column of the Test Specimen, measured in radians. The Inelastic Rotation shall be computed based upon an analysis of Test Specimen deformations. Sources of Inelastic Rotation include yielding of members and connectors, yielding of connection elements, and slip between members and connection elements. For beam-to-column moment connections in Moment Frames, inelastic rotation shall be computed based upon the assumption that inelastic action is concentrated at a single point located at the intersection of the centerline of the beam with the centerline of the column. ~~The~~ the inelastic rotation is represented by the plastic chord rotation angle calculated as the plastic deflection of the beam or girder, at the center of its span divided by the distance between the center of the beam span and the centerline of the panel zone of the beam column connection. For link-to-column connections in Eccentrically Braced Frames, inelastic rotation shall be computed based upon the assumption that inelastic action is concentrated at a single point located at the intersection of the centerline of the link with the face of the column.

SUB-ITEM 5-16 – Commission Action

A AA D FS

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(END OF ITEM)

Part 4

California Mechanical Code

ITEM 12

OSHDP 2/02

Part 4

Section 203-A, 316.5, 407.2, 407.4, 410.0, 602.1, 1131.0 & Table 4-A

SUB-ITEM 12-3

CHAPTER 4 – VENTILATION AIR SUPPLY

407.2.2 Exhaust outlets.

COMMENT #1

Shlomo Rosenfeld
1763 Broadway
Oakland, CA. 94612

Request that this item or reference provision be: Unknown

Reason:

I found conflicts between the [2001] CBC and CMC.

“Exhaust Point of Discharge

1. The CBC Chapter 12 section 1202.2.1 calls for point of exhaust discharge at least 3 feet from any opening of air entry.
2. The adoption table for CBC Chapter 12 shows that this change is adopted by OSHPD.
3. The CMC Section 407.2.2 requires point of exhaust discharge at least 10 feet from any opening of air entry.

What should it be 3 of 10 feet?

This must be clarified.”

SUB-ITEM 12-3 – Commission Action

A AA D FS

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(END OF ITEM)

SUB-ITEM 12-4

407.4 Air Circulation

407.4.1.3 Corridors shall not be...

COMMENT #1

Shlomo Rosenfeld
1763 Broadway
Oakland, CA. 94612

Request that this item or reference provision be: Approved as Amended

Reason:

The current and proposed CMC Section 407.4.1.3 allows to ventilate toilet rooms under 30 SF by transferring air from the corridor. Unfortunately due to ADA requirements, there no more ADA single toilet rooms under 30 SF which open to corridor. The 30 SF limit precludes the option of ventilating the toilet room by transferring air from the corridor. The result is that toilet rooms are designed with direct supply air as follows:

- The code requires 10 air changes per hour (AC/H) in toilet rooms.
- Due to ADA requirement of large size room this results in large volume of air exhaust and makeup air.
- Normally there is small cooling or heating load in a toilet room.
- Toilet rooms do not have individual thermostat.
- The direct 10 AC/H toilet supply air is normally via a branch duct off adjacent zone.
- The adjacent zone thermostat when calling for cooling, is overcooling the toilet room.
- The adjacent zone thermostat when calling for heating, is overheating the toilet room.
- Either way, the direct supply air to toilets is a waste of initial cost and energy cost. Conserve energy.

Suggestion:

As a mechanical engineer and past member of the Hospital Building Safety Board (1987-1997), I suggest that the CBSC review the following amendments as relates to point #3 of HSC Section 18930:

Amend the 30 SF in Section 407.4.1.3 to a larger area, such as 50 SF. Or amend Section 407.4.1.3 to allow a larger area, such as 50 SF only for ADA toilet rooms. Other spaces will stay with the 30 SF limit.

SUB-ITEM 12-4 – Commission Action

A AA D FS

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(END OF ITEM)

SUB-ITEM 12-6

602.1 General

COMMENT #1

Shlomo Rosenfeld
1763 Broadway
Oakland, CA. 94612

Request that this item or reference provision be: Approved as Amended

Reason:

CMC Section 602.1 Exception 1 allows to ventilate toilet rooms of under 30 SF by transferring air from the corridor. Unfortunately due to ADA requirements, there no more ADA single toilet rooms under 30 SF which open to corridor. The 30 SF limit precludes the option of ventilating the toilet room by transferring air from the corridor. The result is that toilet rooms are designed with direct supply air as follows:

- The code requires 10 air changes per hour (AC/H) in toilet rooms.
- Due to ADA requirement of large size room this results in large volume of air exhaust and makeup air.
- Normally there is small cooling or heating load in a toilet room.
- Toilet rooms do not have individual thermostat.
- The direct 10 AC/H toilet supply air is normally via a branch duct off adjacent zone.
- The adjacent zone thermostat when calling for cooling, is overcooling the toilet room.
- The adjacent zone thermostat when calling for heating, is overheating the toilet room.
- Either way, the direct supply air to toilets is a waste of initial cost and energy cost. Conserve energy.

Suggestion:

As a mechanical engineer and past member of the Hospital Building Safety Board (1987-1997), I suggest that the CBSC review the following amendments as relates to point #3 of HSC Section 18930:

Amend the 30 SF in Section 602.1 Exception 1 to a larger area, such as 50 SF. Or amend Section 602.1 Exception 1 to allow a larger area, such as 50 SF only for ADA toilet rooms. Other spaces will stay with the 30 SF limit.

SUB-ITEM 12-6 – Commission Action

A AA D FS

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(END OF ITEM)

SUB-ITEM 12-8

Table 4-A

COMMENT #1

Shlomo Rosenfeld
1763 Broadway
Oakland, CA. 94612

Request that this item or reference provision be: Unknown

Reason: I found conflicts between the [2001] CBC and CMC.

"Air Changes

1. The CBC Chapter 12 section 1202.2.1 calls for 4 air changes (air change every 15 minutes) in toilet room.
2. The adoption table for CBC Chapter 12 shows that this change is adopted by OSHPD.
3. The CMC Table 4-A requires 10 air changes in toilet room.
What should it be 10 or 4 AC/hr?"

SUB-ITEM 12-8 – Commission Action

A AA D FS

* * *

COMMENT #2

Shlomo Rosenfeld
1763 Broadway
Oakland, CA. 94612

Request that this item or reference provision be: Approved as Amended

Reason:

"The CMC Table 4-A includes what appears to be several typographical errors in column C. Several rooms such as Toilet Room appear to have no minimum ventilation air changes rate requirements. However, OSHPD is enforcing the minimum ventilation air changes rate requirement for these rooms as shown in column E. It is a good opportunity to correct the air changes rate (delete the '-' in column C and insert a number same as in column E) to reduce ambiguity in the CMC.

As a mechanical engineer and past member of the Hospital Building Safety Board (1987-1997), I suggest that the CBSC review the following amendments marked-up on the enclosed copy of CMC Table 4-A as related to point #3 of HSC Section 18930.

Delete all the '-' s in column C and insert a number ventilation air changes rate same as in column E.

Many hospitals (OSHPD-1) and clinics (OSHPD-3) include Procedure Rooms. Procedure Rooms are used to treat patients more and more often. However, Procedure Room is not listed in CMC Table 4-A. The 2001 AIA and the U.S. Department of Health and Human Services guidelines include ventilation and pressure relationship criteria for Procedure Rooms. It is a good opportunity to add the Procedure Room criteria to Table 4-A to reduce ambiguity in the CMC.

Suggestion:
As a mechanical engineer and past member of the Hospital Building Safety Board (1987-1997), I suggest that the CBSC review the enclosed copy of the 2001 AIA and the U.S. Department of Health and Human Services guidelines as related to point #3 of HSC Section 18930 and add Procedure Room ventilation and pressure relationship criteria to Table 4-A.”

SUB-ITEM 12-8 – Commission Action

A AA D FS

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(END OF ITEM)

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